20EZ7

High-Mu Twin Triode

9-PIN MINIATURE TYPE

For High-Gain, Resistance-Coupled, Low-Level Audio-Amplifiers Operating at Low-Signal Levels, such as Preamplifiers for Low-Cost Stereophonic Phonographs

GENERAL DATA

Electrical: ←

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	20		volts
Current	0.1 ± 6%		amp

Direct Interelectrode Capacitances (Approx.):[a]

	Unit No. 1	*Unit No. 2*	
Grid to plate	1.5	1.5	μμf
Grid to cathode and heater	1.6	1.6	μμf
Plate to cathode and heater	0.2	0.3	μμf

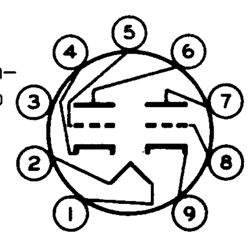
Characteristics, Class A_1 Amplifier (Each Unit):

Plate Voltage	100	250	volts
Grid Voltage	−1	−2	volts
Amplification Factor	100	100	
Plate Resistance (Approx.)	80000	62500	ohms
Transconductance	1250	1600	μmhos
Plate Current	0.5	1.2	ma

Mechanical:

Operating Position . . . . Any
Maximum Overall Length . . . . 2-3/16"
Maximum Seated Length . . . . 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) . . 1-9/16" ± 3/32"
Diameter . . . . 0.750" to 0.875"
Dimensional Outline . . . . See *General Section*
Bulb T6-1/2
Base . . . . Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW . . . . 9PG ←

Pin 1 - Heater
Pin 2 - Heater
Pin 3 - Internal Connection—Do Not Use
Pin 4 - Cathode of Unit No.2
Pin 5 - Grid of Unit No.2



Pin 6 - Plate of Unit No.2
Pin 7 - Plate of Unit No.1
Pin 8 - Grid of Unit No.1
Pin 9 - Cathode of Unit No.1

AMPLIFIER — Class A_1

Values are for Each Unit

Maximum Ratings, *Design-Maximum Values:*

PLATE VOLTAGE . . . . 330 max. volts

← Indicates a change.

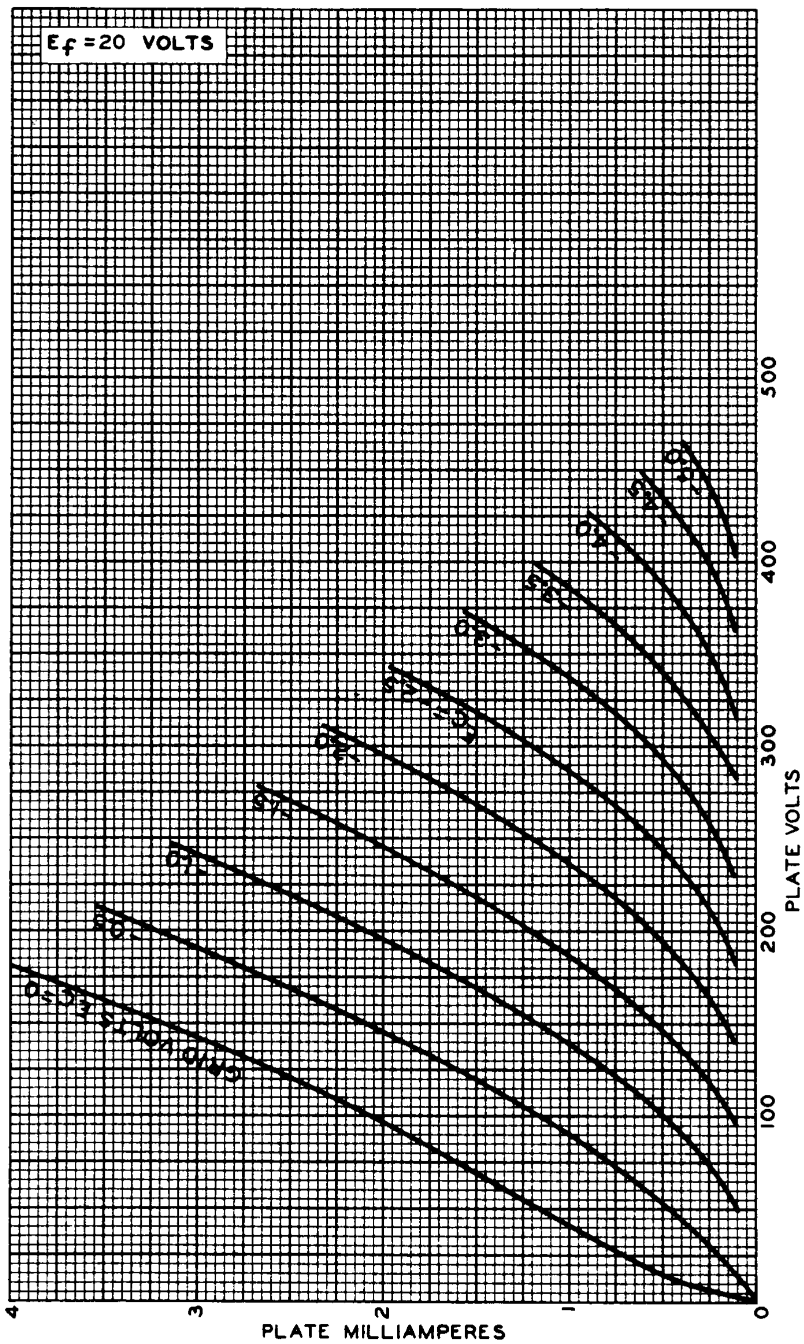
GRID VOLTAGE:			
Negative-bias value	55	max.	volts
Positive-bias value	0	max.	volts
PLATE DISSIPATION	1.2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200[b]	max.	volts

Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED-AMPLIFIER CHART No.25*
at front of this Section

[a] Without external shield.
[b] The dc component must not exceed 100 volts.

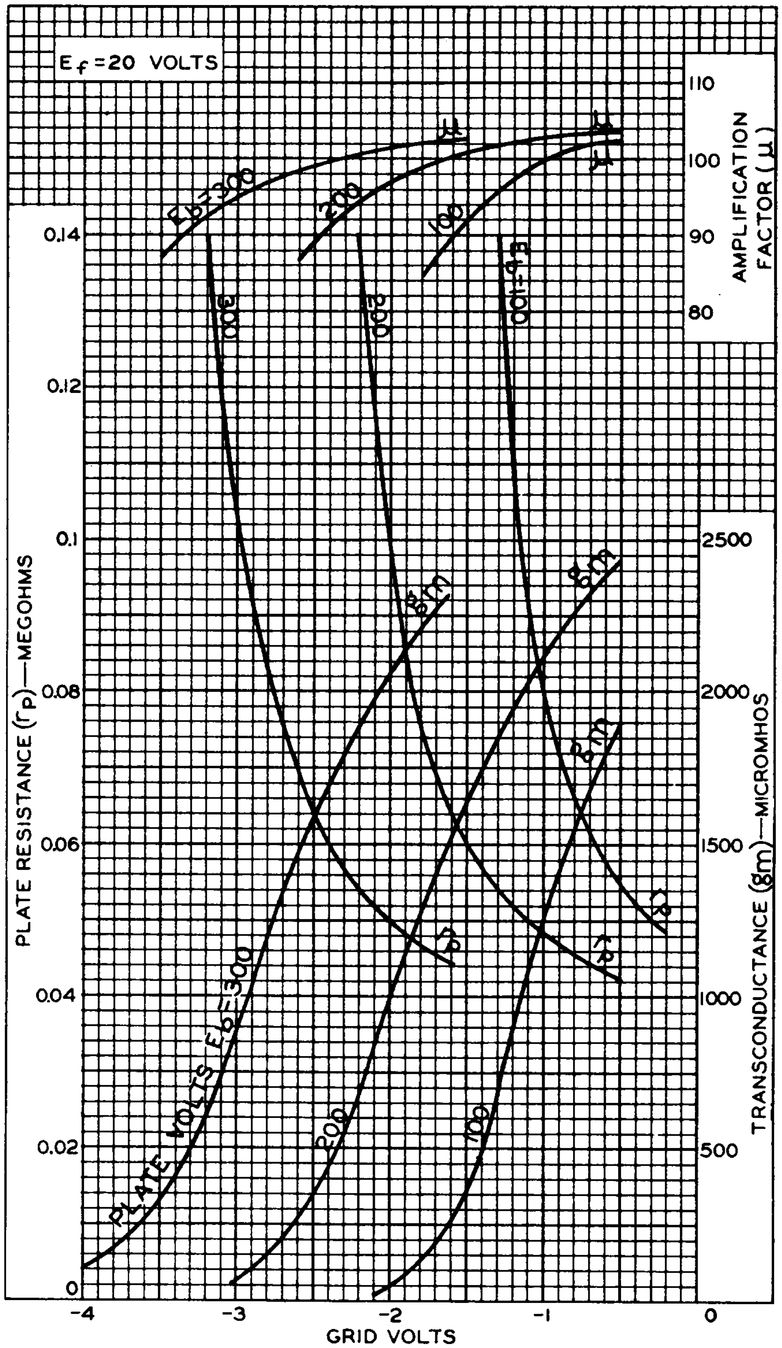
AVERAGE PLATE CHARACTERISTICS
Each Unit



92CM-10804

20EZ7

AVERAGE CHARACTERISTICS
Each Unit



92CM-10805